

# Lens for image circle 16 mm

## Tele-Xenar 2.2/70

In accordance with the sensitivity of modern 1" CCD and CMOS sensors, the lenses are corrected and broadband-coated for the spectral range of 400 – 1000 nm ( VIS + NIR ).

Even under production and / or extreme conditions, the robust mechanical design with lockable focus and iris setting mechanism guarantees reliable continuous use in which the set optical parameters remain in place.



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### Key Features

- High-resolution optics
- Highest optical imaging performance even with small pixel sizes
- Broadband coating (400 - 1000 nm)
- Compact and low weight
- Vibration insensitivity for stable imaging performance
- Focus and iris setting lockable

### Applications

- Machine Vision and other imaging applications
- 3D measurement
- Traffic
- Medical
- Robot vision
- Food processing

### Technical Specifications

F-number	2.2
Focal length	70.5 mm
Image circle	16 mm
Transmission	400 - 1000 nm
Interface	C-Mount
Weight	200 g
Filter Thread	M40.5 x 0.5
Code no	1014593

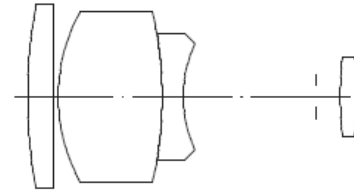
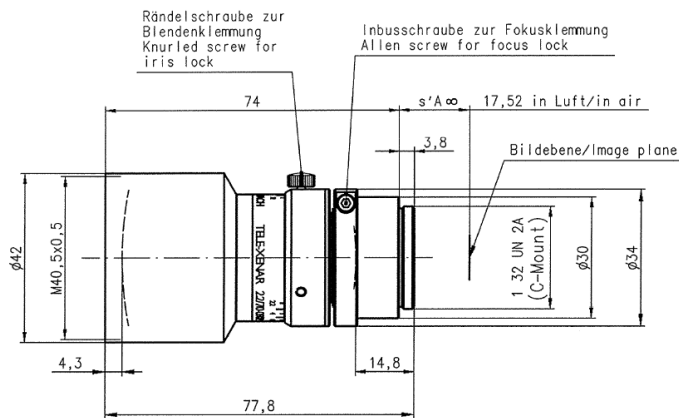
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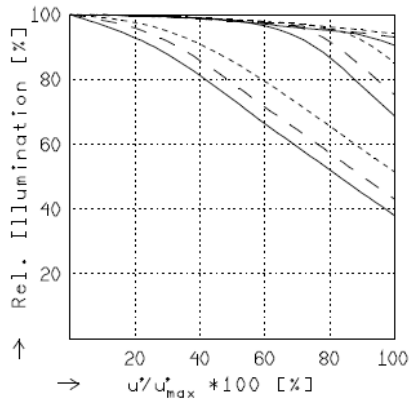
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# Tele-Xenar 2.2/70



## TXR 2.2/70

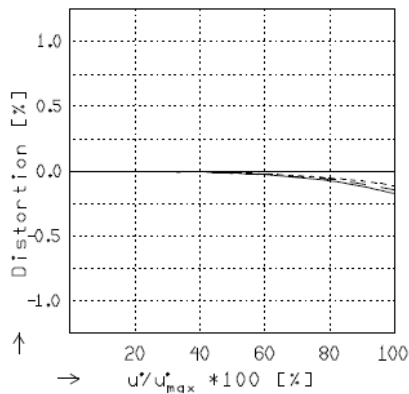
$f^*$ = 70.5 mm	$\beta_p^*$ = 0.494
$s_F$ = -27.8 mm	$s_{EP}$ = 115.0 mm
$s_{F^*}$ = 28.5 mm	$s_{A^*P}$ = -6.3 mm
$HH^*$ = -26.0 mm	$\Sigma d$ = 58.8 mm



## RELATIVE ILLUMINATION

The relative illumination is shown for the given focal distances or magnifications.

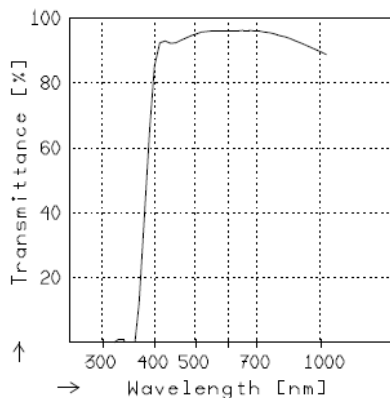
	$f / 2.2$	$f / 4.0$	$f / 8.0$
— $\beta^* = -0.0200$	$u'_{max} = 8.0$	$00^* = 3643.$	
- - $\beta^* = -0.0500$	$u'_{max} = 8.0$	$00^* = 1529.$	
- - - $\beta^* = -0.1000$	$u'_{max} = 8.0$	$00^* = 828.$	



## DISTORTION

Distortion is shown for the given focal distances or magnifications. Positive values indicate pincushion distortion and negative values barrel distortion.

— $\beta^* = -0.0200$	$u'_{max} = 8.0$	$00^* = 3643.$
- - $\beta^* = -0.0500$	$u'_{max} = 8.0$	$00^* = 1529.$
- - - $\beta^* = -0.1000$	$u'_{max} = 8.0$	$00^* = 828.$



## TRANSMITTANCE

Relative spectral transmittance is shown with reference to wavelength.

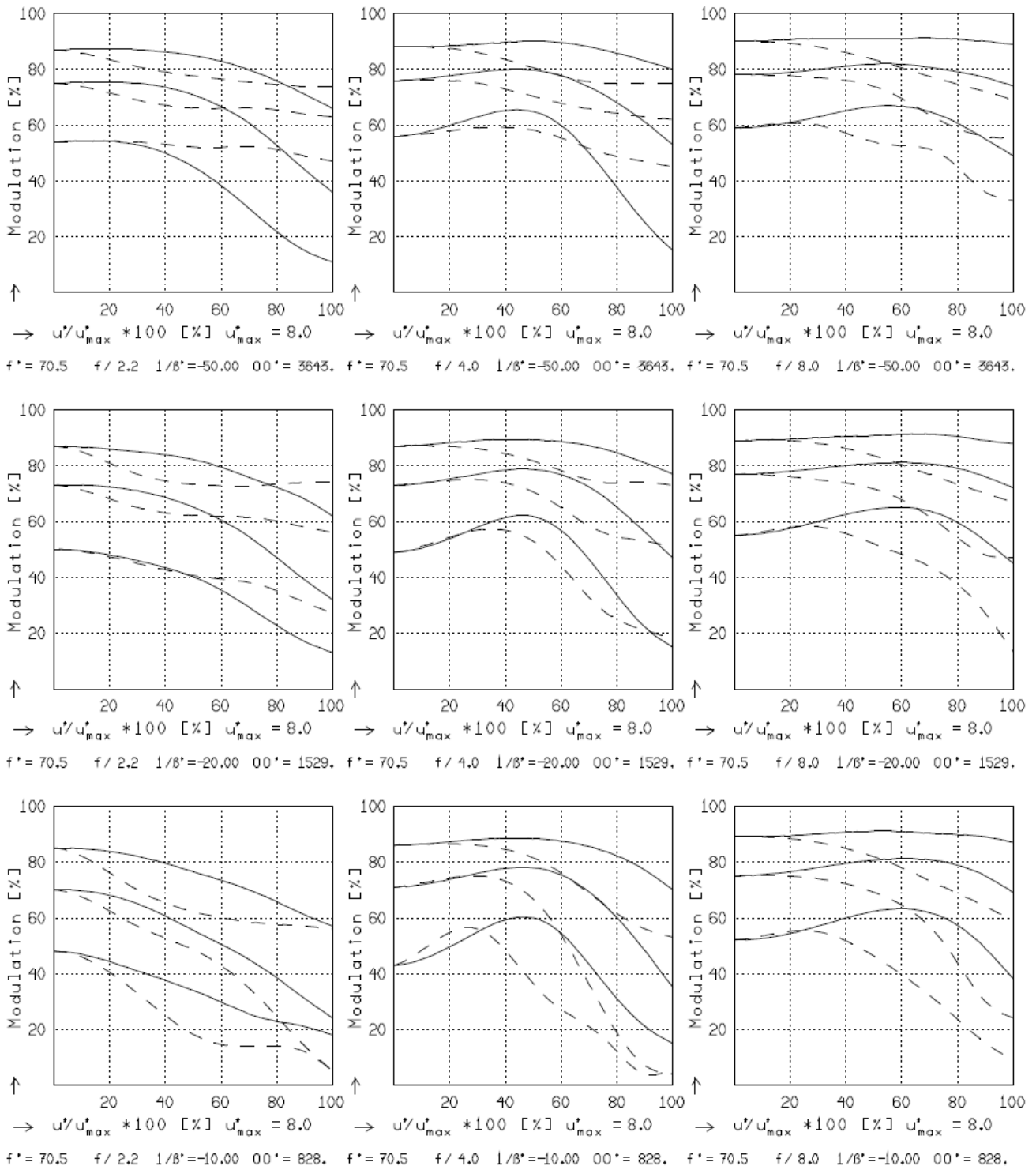
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MODULATION with reference to the relative image height

Wavelength $\lambda$	[nm]	555	655	605	505	455	405
Spectral weighting	[%]	19.6	23.7	22.2	15.7	12.1	6.7
Spatial frequency R	[1/mm]	10	20	40			
Format	[mm X mm]	9.6	12.8				
Diagonal $2u^*$	[mm]	16.0					

radial —  
tangential - -



Focusing :  $MTF_{max}$  at  $f / 2.2$  ,  $R = 40$  1/mm ,  $u'/u'_{max} = 0$